

MARKED-UP VERSIONS OF CLAIMS 39 AND 50:

39. (Currently Amended) A method of monitoring an optoelectronic device, comprising:  
in accordance with instructions received from a host device, enabling the host device to read directly ~~reading~~ from and ~~writing~~ write directly to locations within a memory; and  
receiving a plurality of analog signals from the optoelectronic device, the analog signals corresponding to operating conditions of the optoelectronic device, converting the received analog signals into digital values, and storing the digital values in predefined locations within the memory;

wherein the method is performed by a single-chip controller integrated circuit.

50. (Currently Amended) A method of controlling an optoelectronic transceiver having a laser transmitter and a photodiode receiver, comprising:

in accordance with instructions received from a host device, enabling the host device to read ~~reading~~ directly from and ~~writing~~ write directly to ~~memory mapped~~ locations within a controller of the optoelectronic transceiver;

receiving a plurality of analog signals from the laser transmitter and photodiode receiver, converting the received analog signals into digital values, and storing the digital values in predefined memory mapped locations within the controller;

comparing the digital values with limit values to generate ~~generating~~ flag values ~~based on the limit values~~, and storing the flag values in predefined memory mapped locations within the controller during operation of the optoelectronic transceiver; and

generating control signals to control operation of the laser transmitter in accordance with one or more values stored in the predefined memory mapped locations within the controller. ;

~~analog to digital conversion circuitry for receiving a plurality of analog signals from the laser transmitter and photodiode receiver, converting the received analog signals into digital values, and storing the digital values in predefined memory mapped locations within the controller.~~

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Respectfully submitted,



Gary S. Williams  
**PENNIE & EDMONDS** LLP  
3300 Hillview Avenue  
Palo Alto, CA 94304  
(650) 493-4935

31,066  
(Reg. No.)